



Magnesium Sulphate Anhydrous

Version: 5.0

Revision Date: 28.05.2013

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Magnesium Sulphate Anhydrous
typ. 98% MgSO_4 , calculated with reference to the anhydrous substance

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Raw material for industry

1.3 Details of the supplier of the safety data sheet

Company : K+S KALI GmbH
Bertha-von-Suttner-Str. 7
34131 Kassel
Germany
Telephone : +49-(0)561-9301-0
Telefax : +49-(0)561-9301-1753
E-mail address : info@kali-gmbh.com

1.4 Emergency telephone number

Giftinformationszentrale Nord, Göttingen, Germany
Telephone: +49 (0)551 19240

2. Hazards identification

2.1 Classification of the substance or mixture

Classification(67/548/EEC,1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

Labelling(REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Labelling according to EC Directives (67/548/EEC)

Further information : The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Contact with hot product will cause thermal burns.
React with water under strong development of heat.



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3. Composition/information on ingredients

3.1 Substances

Chemical Name	CAS-No. EINECS-No. / ELINCS No.	Concentration [%]
Magnesium Sulphate (MgSO ₄)	7487-88-9 231-298-2	> 97

4. First aid measures

4.1 Description of first aid measures

- General advice : Get medical attention if symptoms occur.
Show this safety data sheet to the doctor in attendance.
- If inhaled : If breathed in, move person into fresh air.
- In case of skin contact : Wash off with plenty of water.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Obtain medical attention.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Ingestion may provoke the following symptoms:
Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : The product is not flammable.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : none

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Heating or fire can release toxic gas.
Sulphur oxides

5.3 Advice for firefighters

- Special protective equipment for firefighters : Respiratory protection
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.



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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid breathing dust.

6.2 Environmental precautions

Environmental precautions : Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Use a suitable vacuum cleaner.
After cleaning, flush away traces with water.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid creating dust.
Use only clean and dry utensils.
Avoid inhalation, ingestion and contact with skin and eyes.

Advice on protection against fire and explosion : The product is not flammable.
No special protective measures against fire required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in a dry place.
Advice on common storage : No special restrictions on storage with other products.
German storage class : 13 Non Combustible Solids
Other data : Stable under recommended storage conditions.

7.3 Specific end use(s)

: Not relevant

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).



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Personal protective equipment

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| Respiratory protection | : Effective dust mask. |
| Hand protection | : not required under normal use
When handling hot material, use heat resistant gloves. |
| Eye protection | : Safety glasses |
| Skin and body protection | : Long sleeved clothing
Wear suitable protective clothing.
Preventive skin protection |
| Hygiene measures | : When using do not eat or drink.
Wash hands before breaks and at the end of workday. |
| Protective measures | : Do not breathe dust.

: When working with hot material, avoid contact with skin. |

Environmental exposure controls

- | | |
|----------------|------------------------------------|
| General advice | : Do not let product enter drains. |
|----------------|------------------------------------|

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|--|----------------------------------|
| Appearance | : crystalline |
| Colour | : grey |
| Odour | : odourless |
| pH | : ca. 9, 25 °C, Aqueous solution |
| Melting point/range | : 1.130 °C |
| Boiling point/boiling range | : not applicable |
| Flash point | : not applicable |
| Flammability (solid, gas) | : The product is not flammable. |
| Lower explosion limit | : not applicable |
| Upper explosion limit | : not applicable |
| Vapour pressure | : not applicable |
| Density | : 2,7 g/cm ³ , 20 °C |
| Water solubility | : 342 g/l, 20 °C |
| Partition coefficient: n-octanol/water | : no data available |
| Auto-ignition temperature | : not applicable |
| Ignition temperature | : not applicable |
| Thermal decomposition | : > 700 °C |
| Explosive properties | : not applicable |



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Oxidizing properties : not applicable

9.2 Other information

Bulk density : ca. 1.300 kg/m³

10. Stability and reactivity

10.1 Reactivity

Stable

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : React with water under strong development of heat.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : humid air and water

10.6 Hazardous decomposition products

Hazardous decomposition products : No decomposition if stored and applied as directed.
Heating or fire can release toxic gas.
Sulphur oxides

11. Toxicological information

11.1 Information on toxicological effects

Product

Acute oral toxicity : LD50: > 2.000 mg/kg, rat, OECD 425, Information given is based on data obtained from similar substances.

Acute inhalation toxicity : no data available

Acute dermal toxicity : > 2.000 mg/kg, rat, OECD Test Guideline 402, Information given is based on data obtained from similar substances.

Skin corrosion/irritation : Result: No skin irritation, EU Method B.46, Information given is based on data obtained from similar substances.

Serious eye damage/eye irritation : rabbit, Result: No eye irritation, OECD Test Guideline 405, Information given is based on data obtained from similar substances.

Respiratory or skin sensitisation : mouse, Result: Does not cause skin sensitisation., OECD Guideline 429, anhydrous substance

Germ cell mutagenicity

Genotoxicity in vitro : Result: negative, OECD 476, anhydrous substance

Genotoxicity in vivo : no data available

Carcinogenicity : This information is not available.



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According to experience not expected

- Reproductive toxicity : rat, NOAEL: ≥ 1.500 mg/kg, OECD Guideline 422,
Information given is based on data obtained from similar
substances.
Assessment: Animal testing did not show any effects on
fertility.
- Teratogenicity : rat, NOAEL: ≥ 1.500 mg/kg, OECD Guideline 422,
Information given is based on data obtained from similar
substances.
Assessment: Did not show mutagenic or teratogenic effects in
animal experiments.
- STOT - repeated exposure : rat, NOAEL: ≥ 256 mg/kg, OECD Test Guideline 453,
Information given is based on data obtained from similar
substances.
- Further information : The product contains no substances classified as hazardous
to health in concentrations which should be taken into
account., Health injuries are not known or expected under
normal use.

12. Ecological information

12.1 Toxicity

Product:

- Toxicity to fish : LC50: 680 mg/l, 96 h, Pimephales promelas (fathead
minnow), Information given is based on data obtained from
similar substances.
- Toxicity to daphnia and other : LC50: 720 mg/l, 48 h, Information given is based on data
aquatic invertebrates obtained from similar substances.
- Toxicity to algae : EC50: 2.700 mg/l, 18 d, Chlorella vulgaris (Fresh water
algae), Information given is based on data obtained from
similar substances.
- Toxicity to bacteria : EC50: 84 mg/l, 0,5 h, Photobacterium phosphoreum

12.2 Persistence and degradability

Product:

- Biodegradability :
not applicable

12.3 Bioaccumulative potential

Product:



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Bioaccumulation : not applicable

12.4 Mobility in soil

Product:

Physico-chemical : not applicable
removability

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Adsorbed organic bound : not applicable
halogens (AOX)

13. Disposal considerations

13.1 Waste treatment methods

Product : Check if agriculture use is possible.
Contaminated packaging : Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport information

14.1 Land transport

ADR

Remarks : Not a dangerous substance as defined in the above regulations.
Tunnel restriction code : Not relevant

14.2 Sea transport

IMDG

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.3 Air transport

IATA-DGR

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.4 Special precautions for user

Not relevant

14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code



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15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class : WGK 1 slightly water endangering
(Germany)

Notification status

REACH : This substance is exempt from registration according to
Regulation (EC) No. 1907/2006 (REACH).

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

16. Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.